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## (54) IMPROVEMENTS IN OR RELATING TO FISHING ROD HANDLES

(71) We, ABU AKTIEBOLAG, a company duly organized and existing under the laws of Sweden, of 290 70 Svängsta, Sweden, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:-

The present invention relates to a fishing rod handle with an offset reel seat.

In conventional straight rod handles the reel seat, i.e. the portion of the handle on which the fishing reel is to be attached, consists of a section of the tubular handle between rearward and forward annular retaining means for the foot of the reel frame.

Such designs have the advantage that the rod handle can be applied to fishing reels of almost any existing type and size because the reel retaining means are adjustable. Another advantage is that the reel seat does not form any weakening part of the handle. A disadvantage lies in the difficulty of providing straight reel seats with spring locks and build-in springs for quick locking of reels.

In fishing rod handles equipped with spring-biased quick-locking means it is usually necessary to form the reel seat as an offset portion of the handle. This is advantageous from several points of view, in that, for example, the centre of gravity of the reel will come closer to the longitudinal axis of the handle (and the rod) and the spring for the quick-locking means can be placed within a tubular part of the handle. A disadvantage is that the offset weakens the handle. The offset portion could itself be made as strong as the rest of the handle but for manufacturing reasons it is unsuitable to maintain a circular tube profile for the reel seat and its transitions into the forward and rearward parts of the handle, and since there should also be an opening for the quick-locking means in the handle behind the offset reel seat, this usually has a flattened profile which is not as

strong as a continuous tubular profile. Of course, it would be possible to strengthen the handle in this zone by increasing the material thickness but the fishing rod handle must also present a smart design. It is only a limited number of anglers that buy fishing rods from purely practical points of view and, in other words, the rod must both be of high quality and of attractive appearance.

The object of the present invention is to provide a fishing rod handle with an offset reel seat which is strong and relatively light and has an attractive functionalistic appearance.

According to the present invention there is provided a fishing rod handle comprising mutually aligned rear and forward end portions and a middle portion offset from said end portions and forming a seat for the foot of a fishing reel, and is provided with a reel retaining means for releasably receiving and retaining the forward and rear ends of the fishing reel foot to the reel seat, the reel seat merging at its opposed ends by way of inclined transitional portions with the rear and forward end portions of the handle, said inclined transitional portions having portions extending beyond said offset seat portion which form forward and rear legs of a reinforcement portion that extends between the ends of the reel seat portion of the handle and forms a reinforcement to the reel seat portion between the rear and forward portions of the handle, wherein the reel mounting means includes a spring-biased clamping member for clamping the rear end of the fishing reel foot against the reel seat, the clamping member being guided for movement along the offset reel seat between forward and rear abutments and being fixed to a slide member which is guided in a tubular forward part of the rear end portion of the handle, a helical spring being mounted in the tubular part and compressed between the slide member and an internal abutment in

the tubular part so as to bias the clamping member towards the forward abutment for the latter, and a finger grip means being provided on the slide member to facilitate manual movement of the clamping means against the action of the spring for releasing the rear end of the fishing reel foot, and wherein the tubular part of the helical spring and the slide member have a common axis which is substantially parallel with but offset from the longitudinal axis of the reel seat, and rear leg of the reinforcement being formed so as to support and strengthen the portion of the tubular part whereby the slide member is guided.

According to a preferred feature of the invention the reinforcement portion of the fishing rod handle, which extends between the ends of the reel seat portion, is spaced from the reel seat portion and is of generally I-shaped cross-section. In this normally weakened zone the handle will thus be of a very strong yet relatively light construction. As the reinforcing loop has the form and function of a handle, this fishing rod handle will have a smart appearance despite the fact that it will not be as slender as conventional rod handles in the zone of the depressed reel seat. A further advantage is that the reinforcing loop can easily and naturally be formed as a finger grip for the hand with which the angler holds the rod behind the reel and that the loop can be used as a support for the rod, for instance against the boat rail when fishing by boat. If desired the reinforcing loop member may also be utilized as a means for attaching or suspending the rod in suitable holder.

The reinforcement also makes it possible to use relatively slender rod handles for heavy fishing reels but as such reels are generally provided with a larger frame foot than most frequently used small reels the reel seat of the preferred embodiment is provided with a reel frame foot support which is adjustable or movable in the longitudinal direction of the handle, and this makes it possible to use the same quick-locking means independently of the size of the conventional reel frame feet.

The invention will be described in greater detail below with reference to the accompanying drawing, in which:-

Figure 1 is a side elevation and partly a longitudinal sectional view of the portion of a fishing reel handle comprising the reel seat and its reinforcement together with the means for detachable retention of a fishing reel; and

Figures 2 and 3 are cross-sectional views taken along respectively the line II-II and III-III in Figure 1.

The fishing rod handle section shown in Figure 1 includes a portion formed as a depressed reel seat, which is generally desig-

nated 1. This portion passes, at its opposite ends, into a forward end part 2 and a rearward end part 3 which may be of conventional design and on which a coating of cork or like material may be applied. The forward end part 2 is intended to be connected in a conventional manner with the rod and the rearward end part 3 is intended to be connected with a rear handle portion (not shown). The rear part 3 consists of a tubular portion 4 which is inserted in a sleeve-shaped rear part 5 of the depressed main section 1. The tube and sleeve parts 4, 5 form a housing for a spring 6 which is clamped between a rear spring support 7 and the rear end of a tubular piston 8 the forward end of which is in the form of a head 9 with a thumb grip 10 by means of which the piston 8 can be moved backwards against the action of the spring 6. The lower part (base portion) 11 of the thumb grip 10 is formed to permit introduction of the rear rail of a reel frame foot of inverted T-shape into an interspace 13 (Figure 3) between the top surface of the central part 12 of the reel frame 1 and the base portion 11 of the element 10, which portion, in cross-section, is substantially loop-shaped or of inverted U-shape and is guided with its two parallel legs 14 in two parallel guide slots 15 which are formed in the reel seat 1 and define the central support surface 16 for a reel frame foot in the reel seat 1. The locking piston 8, 9 is guided with the loop legs 14 in the guide slots 15 and is movable between forward and rearward abutments 17, 18, the rearward abutment being formed of the ends of the slots 15 while the forward abutment is formed of a pin which is inserted in an aperture in the reel seat 1 and against which the locking piston is normally held by means of the spring 6 (locking position).

The holding means for the forward end of a reel frame foot consists of a loop 20 of inverted U-shape the ends 21 of which are carried down in the guide slots 15 and connected with the reel seat 1 by means of a shaft 22 extending through holes in the loop legs 21. The loop 20 defines, relative to the central supporting surface 16 of the reel seat, a slot 23 similar to the slot 13 of the locking piston but intended for the forward rail of a reel frame foot. The slot 23 tapers in width in forward direction to permit wedging of the frame foot to a certain extent. The holding means/loop 20 is movable into different positions in that the reel seat 1 is provided with two holes 24, 24' for the shaft 22 which can be withdrawn with the aid of simple tools. This permits easy adjustment of the reel seat 1 to frame feet of different lengths, thus allowing the rod handle of the invention to be applied to fishing reels of various size.

At the underside of the depressed reel seat 1 the handle is reinforced by means of a loop-shaped reinforcing element 25 which is

5 formed integrally with the reel seat 1 like the sleeve-shaped rear part 5 of the reel seat and its forward part 2. This integral piece may be cast of metal, such as a light metal alloy or, if desired, it may be made of plastics material.

10 The reinforcement 25 is in the form of a handle loop the legs of which merge with the depressed reel seat 1, substantially at the ends thereof. The loop 25, which is of general I-shaped cross-section, forms a very strong rigidification of the depressed reel seat 1 between the pin-shaped parts 2, 5 and forms a direct reinforcement of the transistional zones 26, 27 between the depressed portion 15 28 and the pin-shaped parts 2, 5 and also along the portion 28. Owing to this reinforcement of the rod handle, the part which normally is the weakest part of the handle will be of very strong construction with a relatively slight weight increase.

20 In the preferred, illustrated embodiment the web 29 and the outer flange 30 of the I-section pass at the ends of the loop legs 25a, 25b for the above-mentioned direct reinforcement in the transitional zones 26, 27. The inner flange 31 of the I-section extends 25 endless from the loop legs 25a, 25b by a prolongation 31' along the underside of the depressed rod handle section 28.

30 The form of the reinforcement 25 described above may of course be modified. The reinforcement may, for example, be formed without flanges and thus it need not be of I-shaped cross-section. The reinforcement 35 25 should, however, allow such stiffening of the rod handle in the area of the depression 23 that the depression, also in case of relatively slender rod handles adapted to fishing reels having a small frame foot, can be made sufficiently long to fit also heavy fishing reels having a relatively long frame foot, without therefore renouncing the desired stiffness. To facilitate the adjustability of the forward frame foot holding means 30, which 40 is movable between two or more different positions 24, 24', this holding means is adapted to pivot on the shaft 22, and this arrangement, in combination with the narrowing cavity 23 provided by the shape of the legs 21 of the holding means, permits self-adjustment of the holding means 30 to various 50 frame foot shapes and dimensions.

55 The loop-shaped reinforcement 25, into which a hand may be introduced during fishing and which, if desired, can form a handle carrying the rod, may advantageously be used as a support means for the rod during fishing from a boat, and then a reel mounted in the reel seat 1 can be operated without 60 hindrance from the support. This advantage is not unimportant for it is known to be difficult to control a fishing reel which has its foot placed close to the reel frame and is mounted in a conventional depressed reel seat, if the rod handle is supported against an

object, such as, for instance, the rail of a boat, in the zone below the reel seat. Further, the rear portion 25a of the element 25 may be used as a finger grip for the hand holding around the rear part of the rod handle.

70 The reinforced reel seat of the invention may be applied to rotary reels as well as to non-rotary reels and also to such non-rotary type reels as are situated below the rod during fishing. In the latter case the element 25 will be turned upwards during fishing, but this is no disadvantage.

75 The rod handle with the reinforced reel seat according to this invention may, as far as details are concerned, be modified in various ways within the scope of the appended claims.

#### WHAT WE CLAIM IS:-

80 1. A fishing rod handle comprising mutually aligned rear and forward end portions and a middle portion offset from said end portions and forming a seat for the foot of a fishing reel, and is provided with a reel retaining means for releasably receiving and retaining the forward and rear ends of the fishing reel foot to the reel seat, the reel seat merging at its opposed ends by way of inclined transistional portions with the rear and forward end portions of the handle, said 90 inclined transistional portions having portions extending beyond said offset seat portion which form forward and rear legs of a reinforcement portion that extends between the ends of the reel seat portion of the handle and forms a reinforcement to the reel seat portion between the rear and forward portions of the handle, wherein the reel mounting means includes a spring-biased clamping member for clamping the rear end of the fishing reel foot against the reel seat, the clamping member being guided for movement along the offset reel seat between forward and rear abutments and being fixed to a slide member which is guided in a tubular forward part of the rear end portion of the handle, a helical spring being mounted in the tubular part and compressed between the slide member and an internal abutment in the tubular part so as to bias the clamping member towards the forward abutment for the latter, and a finger grip means being provided on the slide member to facilitate manual movement of the clamping means against the action of the spring for releasing the rear end of the fishing reel foot, and wherein the 100 tubular part of the helical spring and the slide member have a common axis which is substantially parallel with but offset from the longitudinal axis of the reel seat, and the rear leg of the reinforcement being formed so as to support and strengthen the portion of the tubular part whereby the slide member is guided.

105 2. A fishing rod handle as claimed in claim 1, wherein the reinforcement portion

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- which extends along between the ends of the reel seat portion of the handle is spaced from the reel seat portion and is of generally I-shaped cross-section, the web and the outer flange of said I-section merging via the inclined legs in adjacent ends of the forward and rear end portions of the handle at the undersides thereof, and the inner flange of the I-section merging with hooked portions at a corresponding flange extending along and formed integrally with the underside of the reel seat portion of the handle so that the inner flange of the I-section and the flange at the underside of the reel seat form an endless reinforcement flange around the circumference of an opening which is formed between the reel seat portion and the reinforcement portion and has dimensions such as to permit the introduction of a hand so that the reinforcement portion can also serve as a carrying handle.
3. A fishing rod handle as claimed in claim 1, in which a forward end portion of the reel seat has a forwardly retaining means for the forward portion of a fishing reel foot, wherein the forward leg of the reinforcement is arranged to provide local reinforcement of the reel seat in the zone of the forwardly retaining means.
4. A fishing rod handle as claimed in claim 3, wherein the retaining means for receiving and retaining the forward end of a fishing reel foot consists of a yoke member having legs which are pivotally mounted on a pivot pin inserted in a transverse bore in the reel seat portion, the yoke member defining with the reel seat a forwardly narrowing open ended channel for receiving the forward portion of a fishing reel foot.
5. A fishing rod handle as claimed in claim 4, wherein the pivot pin is removable from the yoke member and from said bore and wherein the reel seat portion of the handle is provided with two or more bores spaced in the longitudinal direction thereof permitting pivotal mounting of said retaining yoke member in various positions along the reel seat to accept reels having different lengths of foot.
6. A fishing rod handle as claimed in claim 1, wherein the clamping means consist of a substantially U-shaped clamping member having a pair of opposite parallel side legs extending into and guided in a pair of parallel guide slots formed in the reel seat portion at opposite sides of the reel seat surface thereof.
7. A fishing rod handle constructed substantially as hereinbefore described with reference to Figures 1 to 3 of the accompanying drawings.

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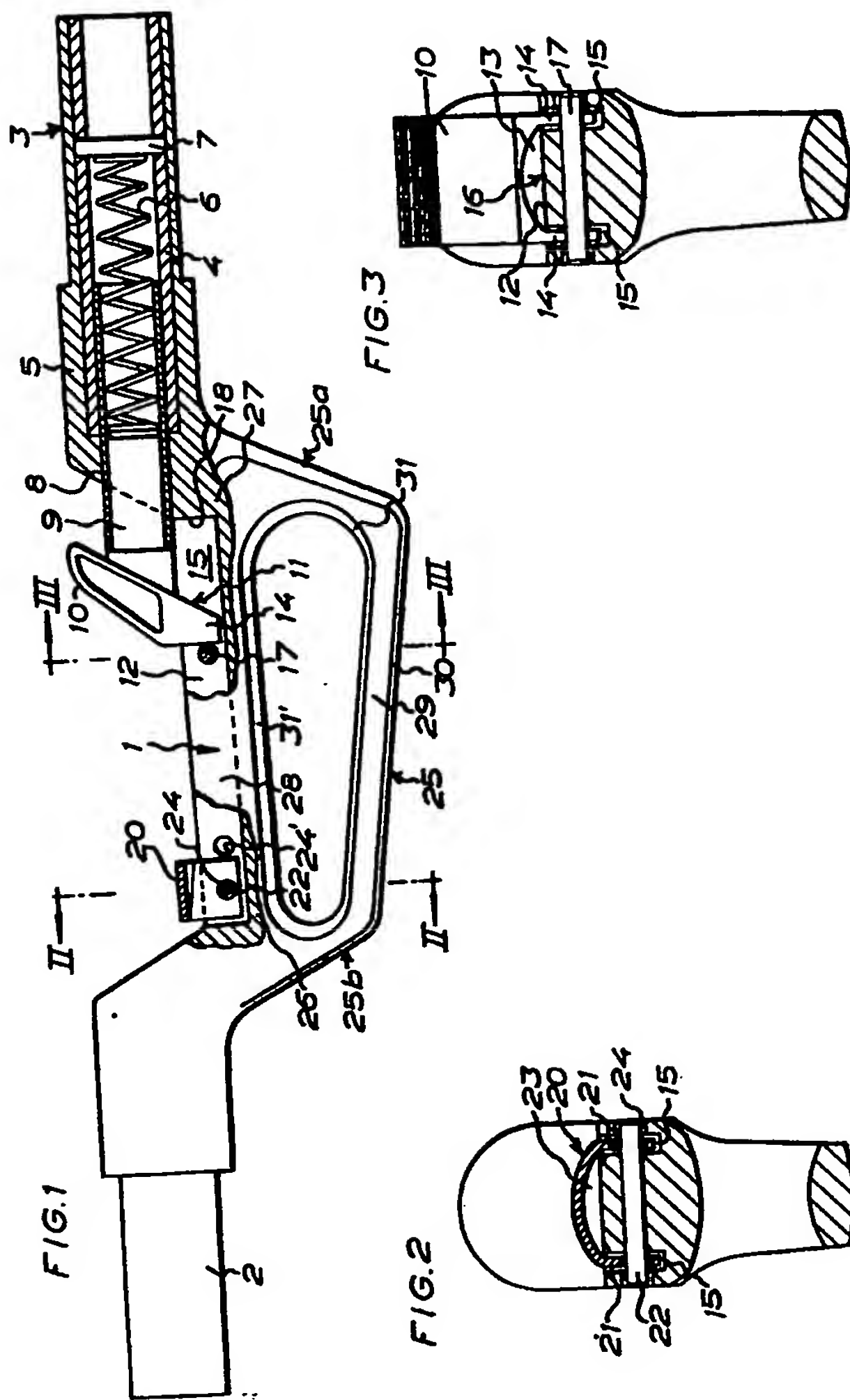
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1 SHEET

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